

22547

Influence of Plastic Deformation ...

S/129/61/000/005/003/003  
E073/E535

lines refer to the specimens which were subjected to thermomechanical treatment. It can be seen that the strength and ductility at  $-195^{\circ}\text{C}$  increases most as a result of thermomechanical treatment at  $900^{\circ}\text{C}$ ; mechanical deformation at higher temperatures leads to deterioration of the properties. Similar results were also obtained for the steels 20XHB (20KhN3), 30XHB (36KhN8S). The microstructure was also studied after each regime of thermomechanical treatment. After ordinary quenching, the fractures show boundaries of austenitic grains, whilst after thermomechanical treatment the fractures show intracrystalline planes and only in individual spots can austenite grain boundaries be detected. An increase in the temperature of the thermomechanical treatment to  $1000^{\circ}\text{C}$  and higher leads to a recrystallization of the work-hardened austenite which begins at the boundaries of the austenitic grains. With increasing recrystallization, the ductility and the strength decrease. The experiments have shown that as a result of the thermomechanical treatment the brittle strength of the austenite grain boundaries increases, reducing the temperature of transition to the embrittled state. There are 1 figure and 6. Soviet references:

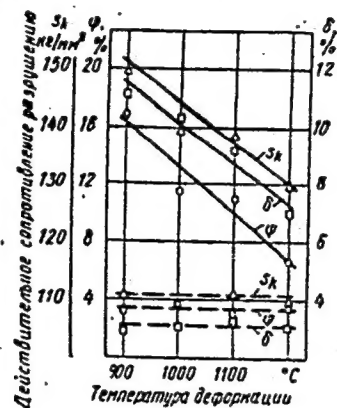
22547

Influence of Plastic Deformation ...

S/129/61/000/005/003/003  
E073/E535

ASSOCIATION: Institut fiziki metallov AN SSSR  
(Institute of Physics of Metals AS USSR)

Fig.1



SOKOLKOV, Ye.N. (Moskva); LOZINSKIY, M.G. (Moskva); CHUPRAKOVA, N.P. (Moskva)

Some characteristics of the mechanism of plastic deformation of  
austenitic steels and alloys during high-temperature thermomechanical  
treatment. Izv. AN SSSR. Otd. tekhn. nauk. Met. i topl. no.3:71-77  
My-Je '62. (MIRA 15:6)  
(Steel--Hardening) (Deformations (Mechanics))

E 9950-65 EWT(m)/T/EWP(k)/EWP(b), P<sup>5</sup>-4 ASD(m)-3/ASD(f)-2 JD/HW/MLK  
ACCESSION NR: AT4046864 S/0000/64/000/000/0331/0335

AUTHOR: Sokolov, Ye. N., Sadovskiy, V.D., Surkov, Yu. P., Chuprakova, N.P.,  
Nishkova, M.M. E

TITLE: Investigation of the hardening and structural stability of austenitic alloys after  
high-temperature thermomechanical treatment

SOURCE: AN SSSR. Nauchnyy sovet po probleme zharoprochnyy splavov issledovaniya  
staley i splavov (Studies on steels and alloys). Moscow, Izd-vo Nauka, 1964. 331-335

TOPIC TAGS: thermomechanical treatment, alloy hardening, alloy structure, alloy  
crystallization, austenite, alloy heat resistance, alloy hardness, plastic deformation,  
alloy steel, austenitic steel

ABSTRACT: Improvement of heat resistance by high-temperature thermomechanical  
treatment is based on the creation of a special structure in the material by  
deformation and its fixation by cooling which prevents  
Investigates the features of hardening in austenitic  
austenitic steel with admixtures of tungsten and titanium after  
the thermal treatment and aging. The effect of temperature and plastic deformation rate

L 9960-65

ACCESSION NR: AT4046864

0

were studied in relation to recrystallization in alloys rolled at a rate of 1.5 m/min at 950-1150C. Samples for rolling were 11.5x11.5x60 mm, and for upsetting were 50x50x70 mm. Special insulation was used during upsetting to prevent rapid cooling. All samples were cooled in water after plastic deformation. The effects of aging were studied by hardness measurements, while structural stability was measured by metallographical methods. Hardness measurements showed that alloys subjected to high-temperature thermomechanical treatment were harder than after the usual thermal treatment. The yield strength of these alloys in comparison with the usual hardening procedures was 15-20 kg/mm<sup>2</sup> even after high-temperature thermomechanical treatment at 800C for 32 hours. Similar results were obtained for other heating and aging temperatures. Impact toughness was also higher after high-temperature thermomechanical treatment (12-13 kg-m/cm<sup>2</sup> instead of 5-7). It is noted that aging for even 1000 hours leads to high stability of the investigated alloys. It is noted that lowering of the rate of plastic deformation leads to restructuring of the metal, avoiding "critical" fields where distorted grains appear. Microstructural analysis also showed that lowering of the deformation rate decreased the tendency toward recrystallization and altered the grain boundary deviations from a dentate to a wave-like pattern. These results lead to new possibilities for applying high-temperature thermomechanical treatment in industry. Special investigations will be required, however, to find the effect

Card 2/3

L 9960-65

ACCESSION NR: AT4046864

of this structure on heat resistance. "The X-ray analysis was made by D.I. Gurfel."  
Orig. art. has: 2 figures.

ABSTRACT: none

RECEIVED 16 Jun 64

ENCL: 00

SUB CODE MM

CLASS: 006

OTHER: M.

Card 33

CHUPRAKOVA, R.N.

Data on Cuban power engineering. Energokhoz.za rub. no.1:48  
Ja-F '59. (MIRA 12:4)

(Cuba--Power engineering)

CHURILKOVA, L.M.

Furnas Hydroelectric Power Station (Brazil). Energoobkhoz. za rub.  
no. 4:32-35 J1-Ag '58.

(MIRA 12:11)

(Furnas, Brazil--Hydroelectric power stations)



CHUPRIGIN G.A.

Approximation of functions by interpolation polynomials at  
equidistant points. Vestsi AN BSSR. Ser. fiz -tekh. nav.  
no.3:11-17 '64. (MIRA 18:2)

CHUPRIGIN, O.A.

Polynomials bounded in equidistant nodes. Dokl. AN BSSR 8 no.4:  
217-219 Ap '64. (MIRA 17:6)

1. Belorusskiy gosudarstvennyy universitet imeni Lenina.  
Predstavleno akademikom AN BSSR V.I. Krylovym.

CHUPRIGIN, O.A. [Chupryhyn, O.A.]

Trigonometric (0, 1, 2, ..., r-2, r)- interpolation.  
Vestsi AN BSSR. Ser.fiz.-mat.nav. no.1:129-131 '65.

(MIRA 19:1)

CHUPRIGIN, O.A.

Lebesgue interpolation function corresponding to Hermite  
interpolation over equidistant points. Vestsi AN BSSR.  
Ser.fiz.-mat.nav. no.2:9-10 '65. (MIRA 19:1)

84582

S/065/60/000/007/006/008/XX  
E194/E484

15.6400

AUTHORS: Kaplan, S.Z., D'yakov, V.K. and Chuprik, N.I.

TITLE: The Influence of Lead and Copper Naphthenates on the  
Destruction of Polymers in Lubricants Thickened With  
Polymers

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, <sup>5</sup>No.7,  
pp.38-42

TEXT: Engine oils in service are in contact with metals and acquire a content of soluble metal salts, moreover they may come in contact with lead salts from gasoline. Previous investigations have shown that metal salts can accelerate oil oxidation and promote destruction of polymers used to thicken oil thus impairing the quality of the lubricant. Thus in the presence of naphthenate of trivalent iron at 150°C, destruction is observed of polymethacrylate, polyisobutylene and vinypol. It was accordingly of interest to study the influence of lead and copper naphthenate on the destruction of polymers in thickened oils and the present work was carried out with this object. Studies were made of the influence of naphthenates of copper and lead on the destruction of polymethacrylate, vinypol and polyisobutylene in turbine oil grade 22H (22L) in atmospheres of oxygen, nitrogen and air at 150°C

Card 1/2

S/065/60/000/<sup>84982</sup>007/006/008/XX  
E194/E484

The Influence of Lead and Copper Naphthenates on the Destruction of Polymers in Lubricants Thickened With Polymers

It was found that in oxygen and in air the lead compounds cause destruction of polymers but this does not occur in nitrogen. Of the polymers studied, polymethacrylate was most subject to destruction by lead naphthenates. Copper compounds have less influence on the destruction of polymers and in the case of vinypol they even somewhat retard reduction of oil viscosity. In accordance with previous observations if no metallic naphthenates are added at 150°C for three hours there is practically no destruction of polymethacrylate and polyisobutylene even in oxygen. However, under these conditions there is destruction of vinypol particularly in oxygen, to a lesser extent in air but not in nitrogen. The test procedure is described, molecular weights of the additives are given. All the tests were made with 5% solutions of polymers in turbine oil grade 22L. Curves of polymer destruction assessed by loss of viscosity are given in Figs. 1, 2, 3 and further data on viscosity change in Table 2. In addition to the results already quoted, it is mentioned that addition of lead and copper compounds usually promotes the development of neutralization value. There are 3 figures.

KAPLAN, S.Z.; GALASHINA, A.P.; Prinsipali uchastiye: CHUPRIK, N.I.; ZVONTSOVA, A.S.

Oxidizability of thickened oils and the effect on it of the derivatives  
of morpholine. Zhur.prikl.khim. 35 no.11:2526-2533 N '62.

(MIRA 15:12)

(Lubrication and lubricants) (Oxidation)

(Morpholine)

EFROS, S.M.; BOYCHINOVA, Ye.S.; CHUPRIK, V.F.

Vanadatometric determination of barium ions. Trudy LTI no.48:  
165-168 '58. (MIRA 15:4)  
(Barium--Analysis)



CHUPRIKOV, A.P.

Establishment of the open door principle in the Vasil'kovo  
Psychiatric Colony. Vrach. delo no.2:147 F '62. (MIRA 15:3)

1. Vasil'kovskaya psikhiatricheskaya koloniya Dnepropetrovskoy  
oblasti.

(VASIL'KOVO--PSYCHIATRIC HOSPITALS)

S/032/62/028/008/004/014  
B139/B104

AUTHORS: Savitskiy, Ye. M., Chuprikov, G. Ye., and Glavin, G. G.

TITLE: Analysis of the gases in rhenium

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 8, 1962, 957 - 959

TEXT: The gases contained in rhenium samples (pieces and powder) were determined by vacuum melting. The choice of the crucible metal is important. Evaluation of phase diagrams for the binary systems Fe-Re, Ni-Re and Pt-Re showed that Ni-Re has the lowest melting temperature and the highest range of solid solution (up to 60%). For the system Re-Ni, the heat of mixing per mole was calculated as +5000 cal., for Re-Fe as +7350 cal. and for Re-Pt as 11200 cal. Hence the crucible used was of nickel. Additional amounts of nickel were put into the crucible as necessary to avoid the rhenium concentration in the melt being raised above 50% on inserting further rhenium samples. The gases were extracted from rhenium samples in compact pieces for 10 to 15 min. at 1700°C; weight of the sample 0.5 g. The powder samples were filled into graphite capsules and the gases extracted for 10 min. at 1900°C. The volume % content of oxygen, hydrogen

Card 1/2

S/032/62/028/008/004/014  
B139/B104

Analysis of the gases ...

and nitrogen was determined. The rhenium for the samples was produced by electrolysis, by reduction from  $\text{NH}_4\text{ReO}_4$  and by powder metallurgy. There are 1 figure and 2 tables.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskey promyshlennosti (State Design and Planning Scientific Research Institute of the Rare Metals Industry)

Table 2. Results.

Legend: (1)  $\text{O}_2$ , % by weight; (2)  $\text{H}_2$ , % by weight; (3)  $\text{N}_2$ , % by weight; (4) electrolytic Re powder; (5) Re powder reduced from  $\text{NH}_4\text{ReO}_4$ ; (6) powder-metallurgical Re; (7) cast Re; initial material: reduced Re powder.

(1)	0.043	0.049	0.50	0.95
(2)	0.039	0.051	0.46	0.89
(3)	0.041	0.049	0.53	0.92
(4)	0.0006	0.0003	0.006	0.003
(5)	0.0006	0.0003	0.0071	0.004
(6)	0.0007	0.0003	0.0072	0.0035
(7)	0.001	0.0002	0.008	0.0025

Card 2/2

SAVITSKIY, Ye.M. (Moskva); CHUPRIKOV, G.Ye. (Moskva)

Effect of oxygen on the mechanical and electrical properties of  
metallic rhenium. Izv.AN SSSR. Otd.tekh.nauk. Met.i topl. no.4:  
137-142 J1-Ag '62. (MIRA 15:8)

(Rhenium--Metallography)

S/180/62/000/006/019/022  
E193/E383

AUTHORS: Savitskiy, Ye.M. and Chuprikov, G.Ye. (Moscow)

TITLE: The mechanism of plastic deformation of rhenium of various degrees of purity

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo, no. 6, 1962, 167 - 170

TEXT: The object of the present investigation was to study the effect of the oxygen content on the mode of deformation of rhenium single crystals tested in tension at room temperature. The oxygen content in the test pieces (2 mm in diameter, 14 mm gauge length) was 0.002 and 0.006 wt.%. The experiments consisted of determining the orientation of each crystal by X-ray diffraction measurements, extending it at a strain rate of 0.5 mm/min to 2% elongation and examining under a microscope the slip lines formed on the surface of each test piece. In the case of the specimen containing 0.002% O, loaded in the direction intermediate between the (10 $\bar{1}$ 0) and (0001) directions, slip on the (10 $\bar{1}$ 0) plane occurred first. All other conditions being equal, increasing the  
Card 1/2

The mechanism of ....

S/180/62/000/006/019/022  
E193/E383

concentration of oxygen to 0.006% brought about the appearance of two systems of slip: slip on the (10 $\bar{1}$ 0) plane and slip on the basal plane (0001) in the (1120) direction. The results obtained confirmed the findings of Geech, Geoffrey and Smith (Probl. sovrem. metallurgii, 1960, no. 5, 139) who had concluded that the existence of three systems of slip in rhenium was caused by high concentration of the interstitial atoms.

SUBMITTED: July 2, 1962

Card 2/2

SAVITSKIY, Ye.M.; CHUPRIKOV, G.Ye.; GLAVIN, G.G.

Analysis of gases in rhenium. Zav.lab. 28 no.8:957-959 '62.  
(MIRA 15:11)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy  
institut redkometallicheskey promyshlennosti.  
(Gases in metals) (Rhenium)

SAVITSKIY, Ye. M. (Moskva); CHUPRIKOV, G. Ye. (Moskva)

Mechanism of the plastic deformation of rhenium with various  
degrees of purity. Izv. AN SSSR. Otd. tekhn. nauk. Met. i topl.  
no.6:167-170 N-D '62. (MIRA 16:1)

(Rhenium) (Deformations(Mechanics))



SAVITSKIY, Ye.M.; TYLKINA, M.A.; CHUPRIKOV, G.Ye.

Effect of metallic impurities on the physicochemical properties  
of rhenium. Zhur.neorg.khim. 7 no.9:2272-2274 S '62.

(Rhenium)

(Metals)

(MIRA 15:9)

CHUPRIKOV, G. YE

(29)

The Second All-Union Conference on Rhenium, sponsored by the Institute of Metallurgy imeni A. A. Baykov, Academy of Sciences USSR, and the State Institute of Rare Metals, was held in Moscow 19-21 November 1962. A total of 335 representatives from 83 scientific institutions and industrial establishments participated. Among the reports presented were the following: autoclave extraction of Re from Cu concentrates (A. P. Zelikman and A. A. Peredereyev); Re extraction from the gaseous phase (V. P. Savrayev and N. L. Peysakhov); recovery of Re by sorption and ion interchange (V. I. Bibikova, V. V. Il'ichenko, K. B. Lebedev, G. Sh. Tyurekhodzhaeva, V. V. Yermilov, Ye. S. Raimbekov, and M. I. Filimonov); production of carbonyl Re (A. A. Ginzburg); electrolytic production of high-purity Re and electroplating with Re (Z. M. Sominskaya and A. A. Nikitina); Re coatings on refractory metals produced by thermal dissociation of Re chlorides (A. N. Zelikman and N. V. Baryshnikov); plastic deformation and thermomechanical treatment of Re (V. I. Karavaytsev and Yu. A. Sokolov); growth of Re single crystals and effect of O<sub>2</sub> on their properties (Ye. M. Savitskiy and G. Ye. Chuprikov); Re-Mo, Re-W, and Re-precious-metal alloys (Ye. M. Savitskiy, M. A. Tytkina, and K. B. Povarova); synthesis of Re nitrides, silicides, phosphides, and selenides (G. V. Samsonov, V. A. Obolonchik, and V. S. Neshpor); weldability of Re-Mo and Re-W alloys (V. V. D'yachenko, B. P. Morozov, and G. N. Klebanov); new fields of application for Re and Re alloys (M. A. Tytkina and Ye. M. Savitskiy); and Re-Mo alloy for thermocouples (S. K. Danishevskiy, Yu. A. Kocherzhinskiy, and G. B. Lapp). [WW]

Tsvetnyye metally, no. 4, Apr 1963, pp 92-93

SAVITSKIY, Ye.M. (Moskva); CHUPRIKOV, G.Ye. (Moskva); BABAREKO, A.A. (Moskva)

Crystal structure distortion during the deformation of rhenium with various degrees of purity. Izv. AN SSSR. Otd. tekhn. nauk. Met. i gor. delo no.3:166-169 My-Je '63. (MIRA 16:7)  
(Rhenium--Metallography) (Crystal lattices)

L 23886-65 EWT(m)/EPF(n)-2/EPR/EWP(t)/EWP(b) Ps-4/Pu-4 IJP(c) JD/  
ACCESSION NR: AT5002764 JG/MLK S/0000/64/000/000/0110/0116

AUTHOR: Savitskiy, Ye. M. (Doctor of chemical sciences), Chuprikov, C. Ye.

TITLE: Influence of oxygen on the fine structure, deformation mechanism, and  
physicomechanical properties of rhenum metal

SOURCE: Vsesoyuznoye soveshchaniye po probleme reniya. 2d, Moscow, 1962. Reniy  
(Rhenium); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1964, 110-116

TOPIC TAGS: rhenum, rhenum microstructure, rhenum deformation, rhenum  
mechanical property, rhenum conductivity, oxygen absorption, rhenum oxide, zone  
refining, electron beam refining

ABSTRACT: This article is a review of work done on the influence of oxygen on the  
properties of rhenum. When the oxygen content of rhenum reaches 0.022%, the plastic  
properties of the metal decline sharply, and its hardness, strength, and electrical  
resistivity at room temperature increase. The penetration of oxygen into the rhenum  
metal causes the blocking of elementary plastic events when the metal is deformed;  
this deformation is associated with a lower degree of crushing of the initial crystal  
structure and a more pronounced accumulation of residual stresses as compared to the  
pure material. This penetration also causes the "wedging" of the regular glide systems

Card 1/2

L 23886-65

ACCESSION NR: AT5002764

6  
and the involvement of new glide systems which act at higher stresses and are associated with a considerable increase in internal strain and a substantial decrease in plasticity. That part of the oxygen which combines with rhenium to form oxides along the grain boundaries is particularly harmful to the plasticity of the metal. Electron-beam vacuum zone refining and the elimination of grain boundaries (i. e., preparation of single crystals) cause an appreciable decrease in the content of interstitial impurities and thus increase the plasticity of rhenium, both at room temperature and at low temperatures. In conclusion, the authors express their deep appreciation to L. N. Guseva, A. A. Babareko, V. N. Kochinskiy, and G. G. Glavin for their suggestions. The resistivity of the rhenium samples was determined by V. N. Kochinskiy at MGU. Orig. art. has: 6 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 05Aug64

ENCL: 00

SUB CODE: MM

NO REF SOV: 009

OTHER: 004

Card 2/2

L 11825-66 EWT(m)/EWP(w)/EPF(n)-2/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JG

ACC NR: AT6002266

SOURCE CODE: UR/2564/65/006/000/0308/0318

AUTHOR: 44,55 Savitskiy, Ye. M.; 44,55 Burkhanov, G. S.; 44,55 Kopetskiy, Ch. V.; 44,55 Chuprikov, G. Ye.

ORG: none

TITLE: Growing and plastic deformation of the single crystals of refractory metals and alloys

SOURCE: AN SSSR. Institut kristallografi. 44,55 Rost kristallov, v. 6, 1965, 308-318

TOPIC TAGS: refractory metal, refractory alloy, metal refining, alloy refining, tungsten, molybdenum, rhenium, tantalum, niobium, vanadium, zone refining, refractory metal single crystal, refractory alloy single crystal, single crystal growing, single crystal property

ABSTRACT: The physical and mechanical properties of single crystals of tungsten, molybdenum, rhenium, tantalum, niobium, vanadium, and their alloys grown from melts of vacuum-arc melted or sintered metals have been investigated. Crystals up to 12-14 mm in diameter and 150-250 mm long were grown in an electron-beam furnace developed at the Refractory and Rare Metals Laboratory of the Institute of Metallurgy im. A. A. Baykov in 1960-1961 for vacuum zone melting of refractory metals. The crystal purity was found to be two orders higher than that of the initial metals and alloys. For instance, the oxygen content dropped from 0.05 and 0.012% in the sintered and in vacuum-arc melted rhenium, respectively, to 0.001% in single crystals. The removal of interstitial impurities decreased the

Card 1/2

L 11825-66

ACC NR: AT6002266

4

tensile strength and appreciably increased the ductility of all investigated metals. For example, the tensile strength of sintered and arc-melted rhenium, 115 and 65.8 kg/mm<sup>2</sup>, respectively, decreased to 42.5 kg/mm<sup>2</sup> for rhenium single crystals. At the same time, elongation increased from 12.1 and 16.1% to 41%. Molybdenum single crystals sustained a bend angle of 180 deg at room temperature and a 60 deg bend angle at -196C. At room temperature, tungsten and niobium single crystals sustained a bend angle of 90 and 180 deg, respectively, and rhenium sustained a bend angle of 90 at -196C. Molybdenum single crystals 13 mm in diameter and 250 mm long were drawn into wire 50 μm in diameter or rolled into 50 μm-thick foil without process annealing. Single crystals of some alloys in the region of solid solutions of the Mo-Nb, Mo-W, Mo-Ti, and W-Nb systems were also grown from electron beam-melted single crystals of the respective metals. The obtained single crystals had essentially the same substructures as the initial components; they also had good ductility and a tensile strength higher than that of the initial metals. Orig. art. has: 10 figures and 4 tables. [MS]

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 002/ ATD PRESS: 4/78

L 22056-66 EMP(e)/EWT(m)/T/EMP(t)/EMP(k) IJP(c) JD

ACC NR: AP6007907

SOURCE CODE: UR/0149/66/000/001/0112/0115

AUTHOR: Savitskiy, Ye. M.; Chuprikov, G. Ye.

ORG: Institute of Metallurgy im. Baykov (Institut metallurgii)

TITLE: Recrystallization diagram of high-purity rhenium

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 1, 1966, 112-115

TOPIC TAGS: recrystallization ~~diagram~~, rhenium, high purity metal, metal purification, plastic deformation, recrystallization temperature, *electron beam melting, crystal growth, refractory metal*

ABSTRACT: The use of electron-beam heating to obtain highly pure Rh by means of zone vacuum melting and growth of Rh monocrystals opens broad new vistas for the utilization of this promising refractory metal. In this connection it is important to know the recrystallization diagram of high-purity Rh, since this makes it possible to select the optimal conditions for the deformation and annealing of Rh in order to obtain semifinished products with the desired mechanical properties. Diagrams of this kind have already been constructed for cast and powdered-metal technical-purity Rh (Ye. M. Savitskiy et al. DAN SSSR, vol. 119, no. 2, 1958). To construct the recryst-

Card 1/2

UDC: 669:849.548.53



I. 22056-66

ACC NR: AP6007907

tallization diagram of high-purity Rh (obtained by eightfold electron-beam vacuum zone refining), the monocrystalline structure of the specimens was destroyed by cold rolling with 0, 5, 10, 20, 40, 60, and 70% reduction in area and with intermediate vacuum annealing; the resulting specimens were deformed at room temperature by rolling through smooth rolls with subsequent vacuum annealing at 900-2400°C for one hour. Thereupon the recrystallization diagram was plotted according to the findings of radiographic and microstructural examination and measurements of hardness. On this basis it is found that the initial recrystallization temperature of high-purity Rh ranges from 1000 to 1500°C depending on the extent of previous reduction in area by rolling (0 to 70%), whereas for technical-purity cast Rh this temperature ranges from 1200 to 1700°C. The critical degree of deformation is 5%, when the hardness of the Rh monocrystals jumps from 100 kg/mm<sup>2</sup> to 155 kg/mm<sup>2</sup>; a further increase in degree of reduction in area no longer causes such a sharp increase in hardness. Orig. art. has: 4 figures.

SUB CODE: 11, 13, 20/ SUBM DATE: 08Oct64/ ORIG REF: 006/

Card

2/2

m 93

L 42135-66 EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k)

IJP(c) JD/HW/JG

ACC NR: AP6027744

SOURCE CODE: UR/0370/66/000/004/0084/0089

AUTHOR: Agayev, N. V. (Moscow); Babareko, A. A. (Moscow); Chuprikov, G. Ya. (Moscow); Bokareva, N. N.

ORG: none

TITLE: Mechanism of the plastic deformation of differently oriented molybdenum single crystals under tension

SOURCE: AN SSSR. Izvestiya. Metally, no. 4, 1966, 84-89

TOPIC TAGS: molybdenum, single crystal, ~~single~~ crystal structure, ~~single crystal~~ plastic deformation

ABSTRACT: A series of variously oriented molybdenum single crystals, 4 mm in diameter and 80—100 mm long, were stretched at a rate of about 1 mm/min. A strong dependence of mechanical properties on the orientation of crystals was observed. Crystals with the axis oriented in the region bounded by [012], [011], [111], and [112] exhibited a high ductility and deformed with multiple necking with a total elongation of 1.5—7%. Crystals with the axis oriented in the region bounded by [012], [112], and [001] had a low ductility and failed in a brittle manner by a cleavage along the plane of the cube with 1—2% elongation. In the group of ductile crystals, those with the axis oriented close

Card 1/2

UDC: 669.28—172

L 4213-66

ACC NR: AP6027744

to [011] deformed locally with a reduction of area of over 90% at a total elongation of about 2%. Crystals with the axis oriented close to [111] deformed uniformly with necking beginning at a total elongation of about 7%. In all cases, deformation proceeded by a multiple slip. It is concluded that no dislocation blocking occurs during the plastic yield of crystals with the axis oriented close to [011]; blocking occurs when the crystal axis is oriented close to [111], but it may be overcome by growing stresses. In crystals with the axis close to [001], the blocking of dislocations prevents yielding altogether and finally leads to brittle fracture. Orig. art. has: 2 figures.

[TD]

SUB CODE: 11/ SUBM DATE: 18Jan65/ ORIG REF: 001/ OTH REF: 007  
ATD PRESS: 5062

Card 2/2 MLP

CHUPRIKOV, I., kand.tekhn.nauk

Improve the indices of sluice operation. Rech. transp. 20 no.9:  
44 S '61. (MIRA 14:9)

(Sluices)

CHUPRIKOV, I.K., kandidat tekhnicheskikh nauk.

Determining the optimum length for water levels between sluices.  
Gidr. stroi. 26 no.4:48-51 Ap '57. (MLRA 10:6)  
(Sluices)

CHUPRIKOV, I.K., kand.tekhn.nauk

Improve and reduce the cost of navigational structures. Rech.  
transp. 18 no.11:20-31 N 59. (MIRA 13:4)  
(Hydraulic structures)

GRISHIN, M.M., prof., doktor tekhn.nauk; POSPELOV, V.N., kand.tekhn.nauk,  
dotsent; CHUPRIKOV, I.K., kand.tekhn.nauk; CHURAKOV, A.I., kand.tekhn.  
nauk

Study of the rock foundation of the Charvak Dam. Sbor.trud.MISI  
no.32:5-14, '61. (MIRA 14:7)  
(Charvak--Dams)

CHUPRIKOV, Mikhail Konstantinovich, kapitan pervogo ranga; KRYLOV, Pavel Sergeyevich, kapitan pervogo ranga; ONISHCHENKO, Yevgeniy Yakovlevich, kapitan pervogo ranga; POPOV, Georgiy Ivanovich, inzh., kapitan vtorogo ranga; PRONICHKIN, A.P., red.; TARSKIY, Yu.S., kapitan vtorogo ranga, red.; SRIHNIS, N.V., tekhn. red.

[Reference book for a watch officer] Spravochnik vakhten-nogo ofitsera. [By] M.K.Chuprikov i dr. Moskva, Voenizdat, 1963. 384 p. (MIRA 17:2)



CHUPRIKOV, N. I. Cand Ped Sci -- (diss) "Phenomena of irradiation and concentration of neural processes during the interplay of "voluntary" reactions." Mos, 1957.  
16 pp 20 cm. (Sci-Res Inst of Psychology, Acad Ped Sci RSFSR), 100 copies  
(KL, 7-57, 110)

87

SKVORTSOV, O.S., inzh.; CHUPRIKOV, S.A.

Effect of the ED-16-01 diesel-electric locomotive on temporary  
750 mm. gauge railroad tracks. Torf.prom. 36 no.3:23-25 '59.  
(MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhelezno-  
dorozhnogo transporta (for Chuprikov).  
(Railroads--Track)

(Peat industry--Equipment and supplies)

KISELEV, V.V.; CHUPRIKOV, S.A., inzh.

Peat transportation workers of the Shatura Railroad Administration are striving for technical progress. Torf.prom. 36  
no.6:1-4 '59. (MIRA 13:2)

1. Shaturskiy torfotransport (for Kiselev). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (for Chuprikov).  
(Shatura--Peat--Transportation)

AL'BREKHT, Vladimir Georgiyevich, doktor tekhn.nauk, prof.; SMIRNOV, Aleksey Ionovich, kand.tekhn.nauk; PETROVA, Vera Nikolayevna, inzh. Prinimali uchastiye: VINOGRADOVA, Ye.I, inzh.; SKVORTSOV, O.S., inzh.; CHUPRIKOV, S.A., inzh. BYKHOVSKAYA, S.N., red.izd-va; MAKSIMOVA, V.V., tekhn.red.

[Selecting the types of superstructure for railroad tracks in open pit mines] Vybory tipov verkhnego stroeniya zheleznodorozhnykh putei v kar'erakh. By V.G.Al'brekht, A.I.Smirnov, V.N.Petrova. Pod obshchei red. A.I.Smirnova. Moskva, Gosgortekhzdat, 1962. 198 p. (MIRA 15:5)  
(Mine railroads)

RAMODIN, V.N., inzh.; CHUPRIKOV, S.A., inzh.; KAPITANOV, V.D., inzh.

Results of the tests of a 10-ton capacity, two-cantilever gantry  
crane. Vest. TSNII MPS 23 no.1:48-53 '64. (MIRA 17:4)

RAMODIN, V.I., inzh.; CHUPRIKOV, S.A., inzh.

New gantry cranes for loading and unloading operations. Zhel. dor.  
transp. 46 no.10:82-84 0 '64. (MIRA 17:11)

LEPSKIY, A.V.; BORODULINA, Ye.V.; UGODIN, Ye.G.; PLYUKHIN, D.S.; MOROZOV, E.N.;  
DRUGAL', S.A.; KHARITONOV, Ye.V.; RAMODIN, V.N.; CHUPRIKOV, S.A.

[Over-all mechanization and automation of the unloading of bulk freight.] Kompleksnaia mekhanizatsiia i avtomatizatsiia vygruzki sypuchikh грузов. Moskva, Transport, 1964. 182p. (Trudy Vsesoiuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta, no.285).

(MIRA 17:12)

CHUPRIKOV, V.I.

AUTHOR: Lunev, V.Ye and Chuprikov, V.I.

136-2-6/22

TITLE: Fluidised Roasting Practice at the Ust'-Kamenogorsk Combine. (Praktika obzhiga v kipyashchemsloye na Ust'-kamenogorskom Kombinate)

PERIODICAL: Tsvetnyye Metally, 1957, No.2, pp. 32 - 36 (USSR)

ABSTRACT: At the Ust'-Kamenogorskiy Combine, as at many other zinc works, multiple-hearth furnaces are being replaced by fluidised roasters. In this paper, details are given of the fluidised practice together with comparative data on the previous practice. The fluidised roasters have been made by removing the mechanisms from inside existing multiple hearth furnaces, the shell and lining being left unchanged. A general view of the roaster and of one of the nozzles are illustrated. The process was sensitive to operating conditions and the gas renewal system was defective (an editorial note here refers the authors to Giprotsvetnet designs and the latest album of fluid bed furnaces). On the whole, however, the fluidised roasters came up to expectations, as shown by a tabulation of comparative performance data. Thus, the daily productivity of the fluidised roaster in tons of concentrate was 120 (that of the multiple hearth furnace being 45), its specific productivity in tons per m<sup>3</sup> of volume was 0.34 (0.12) the sulphide-sulphur

1/2



Fluidised Roasting Practice at the Ust'-Kamenogorsk <sup>136-2-6/22</sup> Combine.  
content in its product was 0.2% (1.0%), the solubility of the  
zinc in its roast was 92% (89%), the exit gas contained 8.0% SO<sub>2</sub>  
(4.5%) and the content of + 1 mm fraction in the roast was  
2/2 8 - 10% (40%).  
There are 2 figures and 3 tables.

AVAILABLE: Library of Congress

TSEREKOV, T.Kh.; LAYKIN, A.Ya.; BATYUKOV, M.I.; ZAROVNYY, M.I.;  
CHUPRIKOV, V.I.

Using oxygen during the Waelz process treatment of zinc cake.  
TSvet. met. 36 no.6:34-39 Je '63. (MIRA 16:7)

(Nonferrous metals--Metallurgy)  
(Oxygen--Industrial applications)

CHUPRIKOV, V.N.

Seminar on practical retraining of geography teachers in Sochi. Geog.  
v shkole 23 no.4:70-72 J1-Ag '60. (MIRA 13:10)  
(Sochi--Geography--Study and teaching)

TCHUPRIKOVA, N.I.

EXCERPTA MEDICA Sec.2 Vol.9/8 Physiology, etc. Aug56

3652. TCHUPRIKOVA N.I. \*Irradiation and concentration of impulses in the visual analyser in man (Russian text) Z. VYSCH. NERV. DEJATEL. 1955, 5/4 (503-510) Graphs 9

A study of the movement of the excitation process over the retina was carried out on human subjects. The subject was placed in front of a screen on which lamps flashed at various distances and was instructed to react as quickly as possible to certain signals by pressing a switch. It was concluded that the mechanism of irradiation and concentration of the nervous process can be studied in the simplest and most reliable manner by tests on the human visual analyser. The results, however, show wide individual variations. In these experiments 2 groups of persons were distinguished: one with a cycle of irradiation and concentration lasting 8-14 sec. and the other with a cycle of 18-24 sec. The values found in animal experiments are very much higher (45-60 sec.).

Von Skramlik - Berlin

USSR / Human and Animal Physiology. The Nervous System. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41741.

Author : Chuprikova, N. I.

\* Inst : ~~Not Given~~

Title : On the Dynamic Changes of Nerve Excitation in the Process of Exercise.

Orig Pub: Vopr. psikhologii, 1956, No 1, 64-69.

Abstract: The subject (S) under observation fixed his eyes on the center of an exposition panel and when instructed to do so, pressed a reacting key upon the flash of the signal bulb; he was not to press the key when the inhibiting bulb flashed. The signal "attention" preceded the flash of bulb. The time

\* [INSTITUT PSIKHologii AKADEMii PEDAGOGICHESKIH NAUK, RSFSR, MOSKVA,

Card 1/3

USSR / Human and Animal Physiology. The Nervous System. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41741.

Abstract: lished between the speed of the chronic concentra-  
tion and the value and stability of the negative  
induction. -- Ye. I. Planskaya.

Card 3/3

CHUPRIKOVA, N.I.

Local changes in the excitability of the visual analyzer under the influence of verbal stimuli. Zhur. vys. nerv. deiat. 11 no.4:630-635  
Jl-Ag '61. (MIRA 15:2)

1. Institute of Psychology, R.S.F.S.R. Academy of Pedagogical Sciences,  
Moscow.

(REFLEXES)

(VISION)

CHUPRIKOVA, N.I.

Local inhibition of afferent impulses under the influence of  
verbal stimuli. Zhur. vys. nerv. deiat. 12 no.2:229-235 Mr-Apr  
'62. (MIRA 17:12)

1. Institut psikhologii Akademii pedagogicheskikh nauk RSFSR,  
Moskva.



CHUPRIKOVA, N.I.

Physiological effect of verbal stimuli during "establishment of attitudes" to react quickly or correctly. Zhur. vys. nerv.deiat. 13 no.2:255-260 Mr-Apr'63. (MIRA 16:9)

1. Institute of Psychology, R.S.F.S.R. Academy of Pedagogical Sciences, Moscow.

(CONDITIONED RESPONSE) (PSYCHOLOGY, PHYSIOLOGICAL)

CHUPRIKOVA, N. I.

"Konstanty kharakterizuyushchiye optimal'nye usloviya obnaruzheniya sverkhporogovykh razlichiy."

report submitted for 15th Intl Cong, Intl Assn of Applied Psychology, Ljubljana, Yugoslavia, 2-8 Aug 1964.

Institut psikhologii, Moskva.

CHUPRIN, I. A.

CHUPRIN, I. A. -- "Aspects of Irrigation in the Piedmont Zone of the Northern Caucasus and Methods of Reducing Filtration in Irrigation Canals." Min Water Economy RSFSR. Southern Sci Res Inst of Hydraulic Engineering and Soil Improvement. Novocherkassk, 1955. (Dissertation for the Degree of Candidate in Technical Sciences).

So.: Knizhnaya Letopis', No. 2, 1956.

SOV/124-57-9-10701

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 9, p 124 (USSR)

AUTHOR: Chuprin, I. A.

TITLE: Water-seepage Prevention for the Permanent Canals in the Piedmont Area of the Northern Caucasus (Meropriyatiya po bor'be s fil'-tratsiyey vody iz postoyannykh kanalov v predgornoy zone Severnogo Kavkaza)

PERIODICAL: Sb. tr. Yuzhnogo n. -i. in-ta gidrotekhn. i melior., 1956, Nr 4, pp 25-28

ABSTRACT: Bibliographic entry

Card 1/1

CHUPRIN, K. K., Engineer

"Diffusion Deoxidation of Steel With Coke in the Basic Open-Hearth Process." Sub 7 Jul 47, All-Union Order of Lenin Sci Res Inst of Aviation Materials (VIAM)

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

CHUPRI<sub>N</sub>, K. K.

"Dissusion Reduction of Steel," Stal', No. 2, 1948.

Cand. Tech. Sci. All-Union Sci. Res. Inst. Aviation Materials

CHUPRIN, K. K.

**Deoxidation of steel by diffusion.** K. K. Chuprin, *Shtal* 8, 135-12 (1948).—Basic open-hearth steel was oxidized by 2 or more additions of 1-5 mm. coke. Charcoal or ground C-electrode waste can be used with equal results. After the heat attained the desired C content,  $\frac{1}{2}$  of the total

coke was spread on top of the slag through the furnace ports. The first application was 2-3 kg. of coke per ton of steel. After 7-10 min. were added the metallic deoxidizers starting with 10% Fe-Si in considerably reduced quantities and the alloying elements. Not more than 10 min. later the rest of the coke before tapping was added. An av. of 4 kg. of coke was used per ton of steel. At this time of tapping, the requisite quantity of Fe-Si was added to the ladle (or trough) and, for complete denoxidation, to the ladle 0.5 kg. per ton of Al. The quantity of Fe-Si depended on the amt. of Si required in the steel. The behavior of P in the metal and  $P_2O_5$  in the slag were unaffected by the coke. The S content in the steel (the coke

contained 0.38-0.39% of total S (dry basis) increased by a negligible amt. (0.002%). The C content of the steel remained unaffected. The oxidation of Mn was reduced from 19.1 by ordinary deoxidation to 9.3% by deoxidation with coke. Cr was not oxidized, indeed it was somewhat reduced (av. 0.55%). In ordinary heats 9% Cr was lost. The oxidation of Si was reduced from 29.0% by ordinary deoxidation to 19.4%; thus the consumption of Fe-Si was considerably reduced. The viscosity of the slag increased by an av. of 20%; but this presented no difficulties. The added coke burns rapidly and it is calculated, that 65% of it goes to create a reducing atm., 30% is consumed to reduce the Fe oxides in the slag, and 5% carbonize the reduced Fe. In the slag approx. 15,000 small metal spheres per cc. were found. The diam. of 82.1% of these was 0.01-0.12 mm., 9.8% had a diam. of 0.12-0.23 mm., and 8.1% a diam. of 0.23-0.42 mm. Magnetic sepn. removed from the slag 0.995% in the form of metal spherules while only 0.11% was removed from ordinary slags. Considerable importance is ascribed to these spherules. The burning coke causes a reducing atm. while the solid C starts the reduction of metal oxides, predominantly FeO. The reduced Fe forms a colloidal dispersion in the slag. The at first-ultramicroscopic Fe droplets coalesce and grow to micro- and occasionally macroscopic size. The spherules become carbonized and having a vastly larger contact area with the slag than the melt-slag interphase act as very effective deoxidizers. The impact strength, relative elongation, microstructure, and other phys. properties of steel deoxidized by this method are more favorable than in ordinarily deoxidized steel. M. H.

# ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

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REAR OF CAR 26

Use of Vacuum in Metallurgy

SOV/4548

articles are accompanied by references.

TABLE OF CONTENTS:

PART I. MELTING OF STEELS AND ALLOYS  
IN VACUUM INDUCTION FURNACES

Kashin, V.I., and A.M. Samarin. Vacuum Melting of Heat-Resistant Nickel-Base Alloys	5
Samarin, A.M., and G.A. Garnyk. The Effect of Silicon on the Rate and Degree of Decarburization of Molten Metal in Vacuum Induction Furnaces	15
<u>Chuprin, K.K.</u> , V.M. Amonenko and I.S. Bolgov. Melting and Pouring of Nickel-Base Alloys in Vacuum [V.A. Zhabina, N.F. Lashko, V.A. Azhazha, A.P. Balashov and V.V. Mukhin participated in the work]	23
Nekhendzi, Yu.A., and M.T. Bogdanov. Casting of Oxide-Film-Forming Alloys in the Protective Atmosphere Under Vacuum	30

~~Card 2/9~~



GRECHIN, V.P.; CHUPRIN, K.K.; FROLOV, A.V.; SONYUSHKINA, A.P.

Vacuum metallurgy of nickel alloys. Issl.po zharopr.splav.  
8:224-229 '62. (MIRA 16:6)  
(Nickel alloys--Metallurgy) (Vacuum metallurgy)

CHUPRIN, L.M.

New standard plans for railroad stations. Transp.stroi. 9  
no.7:27-30 J1 '59. (MIRA 12:12)

1. Glavnyy arkhitekt Kiyevgiprotransa.  
(Railroads--Stations)  
(Architecture--Designs and plans)

CHUPRIN, L.M.

Plan of the new Chelyabinsk station. Transp.stroi. 11 no.3:35-39  
Mr '61. (MIRA 14:3)

1. Glavnyy arkhitekt Kiyevgiprotransa.  
(Chelyabinsk--Railroads--Stations)

CHUPRIN, N.Ye.[Chupryn, N.E.]; VORONOVA, M.A.

New data on the stratigraphy of Lower Cretaceous sediments  
in the northwestern part of the Dnieper-Donets Lowland. Geol.  
zhur. 23 no.2:87-90 '63. (MIRA 16:6)

1. Chernigovskaya ekspeditsiya Ukrainakogo nauchno-issledovatel'-  
skogo gornorudnogo instituta i Institut geologicheskikh nauk  
AN UkrSSR.

(Dnieper-Donets Lowland—Geology, Stratigraphic)

ACC NR: AT7006724

SOURCE CODE: UR/2546/66/000/156/0011/0024

AUTHOR: Chuprin, S. F.

ORG: none

TITLE: Thermal modification of cold air masses in spring over the North Atlantic and Europe

SOURCE: Moscow. Tsentral'nyy institut prognozov. Trudy. no. 158, 1966.  
Sinopticheskaya meteorologiya (Synoptic meteorology), 11-24

TOPIC TAGS: air temperature, air mass, weather forecasting

ABSTRACT: This paper furnishes data on daily changes in temperature of the air in cold air masses moving in spring (March to May) from Greenland to European SSSR. One hundred twenty-one invasions of air for the period from 1956 to 1964 have been investigated. The data have been arranged in five groups according to the path followed by the air mass, and the daily variations in temperature have been plotted for the 850-, 700-, and 500-millibar levels on graphic profiles. On the basis of these profiles, an empirical formula has been derived to permit computation of temperature change in dependence on passage time over the ocean and variation of temperature of the underlying surface:  $\Delta T = \frac{(T_0 - T_1)t}{v}(1-L)$ , where  $t$  is the time of passage of the air mass over the water,  $T - T_0$  is the change in temperature of the

Card 1/2

ACC NR: AT7006724

underlying surface for the time  $t$ ,  $L$  is the distance the air mass passes over ocean covered by ice, and  $K$  is a coefficient accounting for the retardation and decrease with height of heat flow from below. The coefficient  $K$  was found to be 0.8, 0.6, and 0.3 for the three levels at 850, 700, and 500 millibars, respectively. Computed results were compared with observation of 30 events, and computed values did not vary more than  $1.5^\circ$  in 60% of the examples. In the 40% that remained, for which the variation exceeded  $1.5^\circ$ , both positive and negative variations were observed. Use of Pearson's test indicates that the formula gives a reliability of 85%. Orig. art. has: 10 figures, 5 tables, and 1 formula.

SUB CODE: 04/      SUBM DATE: none/      ORIG REF: 004/      OTH REF: 001

Card 2/2

ACC NR: AT7006730

(N)

SOURCE CODE: UR/2546/66/000/158/0069/0075

AUTHOR: Chuprin, S. F.

ORG: none

TITLE: Computation of heat balance and heat flow above the North Atlantic

SOURCE: Moscow. Tsentral'nyy institut prognozov. Trudy. no. 158, 1966.  
Sinopticheskaya meteorologiya (Synoptic meteorology), 69-75

TOPIC TAGS: heat balance, atmospheric temperature gradient, air mass

ABSTRACT: The author has considered all factors affecting heat balance above the ocean (solar radiation, evaporation loss, condensation of vapor, heat exchange with air, heat exchange in water by horizontal flow, heat exchange in water by convection and turbulence, ice formation, and ice melting) and has computed the average daily heat balance of the water surface at six stations during summer and winter invasions of cold air masses from Greenland into the North Atlantic. Data and techniques are borrowed from a number of authors. The results indicate that the air masses are heated chiefly by atmospheric absorption of long-wave radiation from the ocean surface, by convective-turbulent exchange, and by generation of latent heat of condensation. It was computed that in winter the ocean surface must give off 34--35 cal/cm<sup>2</sup> per day to raise the air temperature 1°. Maximal daily heating

ACC NR: AT7006730

is observed at the 800-millibar level (8--9°). Heating is 6° at 700 millibars and 3° at 500 millibars. It follows from this that 315, 210, and 105 cal/cm<sup>2</sup> reach these three levels (respectively) daily from the underlying layers. Orig. art. has: 1 figure, 2 tables, and 6 formulas.

SUB CODE: 04/      SUBM DATE: none/      ORIG REF: 008



CHUPRIN, S.F.

Thermal transformation of air masses over the North Atlantic  
and Europe during invasions of coldness in winter. Trudy  
TSIP no.146:88-92 '65. (MIRA 18:9)

CHURIN, V.

The main criterion is place of accident. Okhr. truda i sots. strakh.  
3 no.7:68-71 JI '60. (MIRA 13:8)  
(Industrial accidents)

CHUPRIN, V.

Petroleum pumps petroleum. Izobr.i rats. no.6:28-29 Je '62.

(MIRA 15:6)

1. Nachal'nik Byuro po delam ratsionalizatsii i izobretatel'stva  
morskogo porta, g. Tuapse.

(Petroleum—Transportation)

CHUFERIN, Yu.V.

Myoplasty in persistent paralysis of the muscles controlling facial  
expression. Vest. khir. 85 no. 8:113-117 Ag '60. (MIRA 14:1)  
(FACE—SURGERY)

BARBOY, V.M., inzh.; LYSENKO, M.T., inzh.; CHUPRINA, G.I., inzh.;  
YUDIN, A.V., dotsent, kand.khim.nauk

Ion exchange from electrolyte mixtures. Izv.vys.ucheb.zav.;tekhn.  
leg.prom. no.1:72-80 '59. (MIRA 12:6)

1. Kiyevskiy tekhnologicheskoy institut legkoy promyshlennosti.  
Rekomendovana kafedroy obshchey khimicheskoy tekhnologii.  
(Ions--Migration and velocity)

YUDIN, A.V., dotsent, kand.khim.nauk; CHUPRINA, G.N., inzh.

Mechanical and elastic properties of unbleached artificial  
albumin fibers made from glutino-gelatinous fractions of  
collagen. Izv.vys.ucheb.zav.; tekhnolog.prom. no.3:48-61  
'59. (MIRA 12:12)

1. Kiyevskiy tekhnologicheskoy institut legkoy promyshlennosti.  
Rekomendovana kafedroy iskusstvennogo volokna i obshchey  
khimicheskoy tekhnologii.  
(Textile fibers, Synthetic) (Collagen)

PERRO, V.V.; PROSKURENKO, S.I.; CHUPRINA, G.T.; VOZIYANOV, V.I.

Using the USB-2 at the No.2 "Kontarnaia" Mine. Ugol' Ukr. 7  
no.10:25 0 '63. (MIRA 17:4)

1. Normativno-issledovatel'skaya stantsiya kombinata Artemugol'.

GALYATIN, V.M.; KALINSKIY, D.N.; Prinimali uchastiye: KUROCHKIN, I.F.;  
DUVANOV, A.I.; SOLOV'YEV, Yu.F.; GERASIMOV, Yu.V.; GROSVAl'D, V.G.;  
SHASHKOV, M.N.; VOLKOV, A.A.; ZHILKO, E.I.; MITROPOL'SKIY, Yu.I.;  
FEDOSEYEV, S.V.; GONCHAROV, F.I., rabotnik; SHEMETOV, P.Ye.,  
rabotnik; CHUPRINA, I.A., rabotnik; DEMIN, P.Ye., rabotnik;  
GONCHARENKO, P.V., rabotnik; SIMANYUK, G.N., rabotnik

Investigating power and technological parameters of rolling on the  
2350 medium sheet mill. [Sbor. trud.] TSNIICGM no.29:138-148  
'63. (MIRA 17:4)

1. Sotrudniki TSentral'nogo nauchno-issledovatel'skogo instituta  
chernoy metallurgii (for Gerasimov, Grosval'd, Shashkov, Volkov,  
Zhilko, Mitropol'skiy, Fedoseyev). 2. Listoprokatnyy tsekh  
Magnitogorskogo metallurgicheskogo kombinata (for Goncharov,  
Shemetov, Demin, Chuprina, Goncharenko, Simanyuk).



*Chuprina, K.F.*

BELONozHKO, V.M., kand.med.nauk; PRIMAK, V.M.; KUMPAN, K.O.; CHUPRINA, K.F.;  
ZANOZDRA, M.S.; VOLKOVA, I.O.

Role of oxygen therapy in controlling a hypotensive syndrome. Medych.  
zhur. 21 no.6:44-54 '51. (MIRA 11:1)

1. Z viddilu funktsional'noi terapii (zav. - prof. F.Ya.Primak)  
Ukrains'kogo institutu klinichnoi meditsini (direktor - akad.  
M.D.Strazhesko)  
(HYPOTENSION) (OXYGEN--THERAPEUTIC USE)

USSR/ Chemistry

Card 1/1 Pub. 22 - 24/56

Authors : Blokh, G. A., and Chuprina, L. F.

Title : Mobility of S-bonds in rubber and bonite

Periodical : Dok. AN SSSR 99/5, 757-760, Dec 11, 1954

Abstract : Report is presented on the mobility of sulfur bound in thiuram rubber and ebonite. Experiments showed that monosulfide bound sulfur in thiuram rubber and in ebonite is immobile and does not participate in interchange reactions. The nature of the sulfur structure, in the case of ebonite, is discussed. A study of ebonite of ebonite pyrolysis products showed that the S in the ebonite is bound intramolecularly with the tertiary carbon atom, i.e., the sulfur atom binds not two neighboring carbon atoms but the atoms separated from each other by two methylene groups thereby forming a thiophene grouping in the ebonite structure. The differences in the structures of S-bonds of rubber and ebonite are explained. Eight references: 6-USSR; 1-USA and 1-English (1934-1954). Tables.

Institution : Technological Institute of Light Industry, Kiev

Presented by: Academician P. A. Rebinder, July 1, 1954

SOV/58-59-5-10500

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 5, p 96 (USSR)

AUTHORS: Chuprina, L.F., Kotov, M.P.

TITLE: Technique for the Study of the Structural-Mechanical Properties of High Polymers by the Stretching Method

PERIODICAL: Tr. Kiyevsk. tekhnol. in-ta legkoy prom-sti, 1958, Nr 10, pp 46 - 49

ABSTRACT: An apparatus is described for studying the structural-mechanical properties of high polymers in films. This apparatus is a modification of that designed by S.Ya. Veyler, V.I. Likhtman, and P.A. Rebinder (Kolloidn. zh., 1949, Vol 11, Nr 8). In contrast to the latter, where deformation is effected by means of torsion, in the present apparatus the investigated sample is subjected to deformation by stretching. The elongation of the sample is effected with the aid of a lifting stage and registered by a microscope, which is displaced together with the stage. The stress in the sample is measured with the aid of a spring micro-dynamometer. The stretching of the spring is determined by the difference between the height of displacement of the lifting stage and the elongation of the sample. The apparatus makes it possible to study the kinetics of

Card 1/2

SOV/58-59-5-10500

Technique for the Study of the Structural-Mechanical Properties of High Polymers by the Stretching Method

deformation in the case of a constant external force acting upon the sample (to this end the spring is made to stretch steadily in proportion to the deformation of the sample by manually twisting the screw of the lifting stage), as well as to study stress relaxation in the sample while constant elongation is maintained. The authors provide the curve depicting the variation of deformation with time under constant stress in the case of natural rubber.

A.V. Sidorovich



Card 2/2

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